Specifications

# Eaton 144060

## Catalog Number: 144060

Eaton EU5E SWD input card, 24 V DC, 4 digital inputs with 24 V power supply, 0.5A, 3 conductor connection




### General specifications

**Product Name**
Eaton EU5E I/O module

**Catalog Number**
144060

**EAN**
4015081405909

**Product Length/Depth**
102 mm

**Product Height**
90 mm

**Product Width**
35 mm

**Product Weight**
0.09 kg

**Certifications**
UL File No.: E29184
UL
UL Category Control No.: NKCR
CSA File No.: 2324643
IEC/EN 61131-2
CSA
CSA Class No.: 3211-07

**Catalog Notes**
Inputs with supply for sensor system.

Powering Business Worldwide

## Features & Functions

### Electric connection type

Flat plug-in connection

### Features

Fieldbus connection over separate bus coupler possible

### Functions

For connection of digital I/O signals

## General

### Current consumption

33 mA, SmartWire-DT network

### Degree of protection

IP20

### Mounting method

Wall mounting/direct mounting

Top-hat rail fixing (according to IEC/EN 60715, 35 mm)

Rail mounting possible

### Overvoltage category

II

### Pollution degree

2

### Product category

SmartWire-DT slave

### Residual ripple

≤ 5 % (input voltage)

### Terminal capacity

0.25 - 1.5 mm² (24 - 16 AWG), flexible with ferrule, Terminal for I/O sensor

0.2 - 1.5 mm² (AWG 24 - 16), solid, Terminal for I/O sensor

### Type

Digital modules

### Voltage type

DC

## Ambient conditions, mechanical

### Constant acceleration

1 g, 8.4 - 150 Hz, according to IEC/EN 61131-2, Vibrations

### Constant amplitude

3,5 mm, 5 - 8.4 Hz, according to IEC/EN 61131-2, Vibrations

### Drop and topple

50 mm Drop height, Drop to IEC/EN 60068-2-31

### Height of fall (IEC/EN 60068-2-32) - max

0.3 m

### Mounting position

As required

## Climatic environmental conditions

### Air pressure

795 - 1080 hPa (operation)

### Ambient operating temperature - min

-25 °C

### Ambient operating temperature - max

55 °C

### Ambient storage temperature - min

-40 °C

### Ambient storage temperature - max

70 °C

### Shock resistance

15 g, Mechanical, according to IEC/EN 60068-2-27, Half-sinusoidal shock 11 ms, 9 Impacts

### Climatic proofing

Dry heat to IEC 60068-2-2

Damp heat, constant, to IEC 60068-2-3

### Environmental conditions

Condensation: prevent with appropriate measures

### Operating temperature - min

-25 °C

### Operating temperature - max

55 °C

### Relative humidity

5 - 95 % (non-condensing, IEC/EN 60068-2-30)

## Electro magnetic compatibility

### Air discharge

8 kV, according to IEC 61131-2, level 3, ESD

### Burst impulse

2 kV, Supply cable, according to IEC/EN 61131-2, Level 3

1 kV, SmartWire-DT cable, according to IEC/EN 61131-2, Level 3

1 kV, Signal cable, according to IEC/EN 61131-2, Level 3

### Contact discharge

4 kV, according to IEC/EN 61131-2, Level 2, ESD

### Electromagnetic fields

1 V/m at 2.0 - 2.7 GHz (according to IEC/EN 61131-2:2008)

10 V/m at 80 - 1000 MHz (according to IEC/EN 61131-2:2008)

3 V/m at 1.4 - 2 GHz (according to IEC/EN 61131-2:2008)

### Radiated RFI

10 V (IEC/EN 61131-2:2008, Level 3)

### Radio interference class

Class A (EN 55011)

### Surge rating

0.5 kV, Surge power cables, Surge (IEC/EN 61131-2:2008, Level 1), EMC

1 kV, Surge I/O cables, Surge (IEC/EN 61131-2:2008, Level 1), EMC

## Electrical rating

### Input current at signal 1

4 mA

### Output current

0 A

### Power loss

1.1 W

### Rated operational voltage

24 V DC (-15 %/+ 20 % - power supply)

### Supply voltage at AC, 50 Hz - min

0 VAC

### Supply voltage at AC, 50 Hz - max

0 VAC

### Supply voltage at DC - min

0 VDC

### Supply voltage at DC - max

28.8 VDC

## Communication

### Connection to SmartWire-DT

Yes

### Connection type

Plug, 8-pole, SmartWire-DT

Connection plug: external device plug SWD4-8SF2-5, SmartWire-DT

Push in terminals, Supply and I/O sensor

### Data transfer rate

Setting automatically

250 kBit/s, SmartWire-DT

### LED indicator

Status indication of SmartWire-DT network: Green LED

### Protocol

Other bus systems

### Station

SmartWire-DT slave, SmartWire-DT network

## Input/Output

### Number of inputs (digital)

4

### Number of outputs (digital)

0

## Safety

### Explosion safety category for dust

None

### Explosion safety category for gas

None

### Potential isolation

Outputs to SmartWire-DT: yes

Inputs for SmartWire-DT: yes

### Protection against polarity reversal

Yes

Yes, for supply voltage (Siemens MPI optional)

## Design verification

### Equipment heat dissipation, current-dependent Pvid

0 W

### Heat dissipation capacity Pdiss

0 W

### Heat dissipation per pole, current-dependent Pvid

0 W

### Rated operational current for specified heat dissipation (In)

0 A

### Static heat dissipation, non-current-dependent Pvs

1.1 W

### 10.2.2 Corrosion resistance

Meets the product standard's requirements.

### 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

### 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

## Resources

### Brochures

eaton-smartwire-dt-intelligent-wiring-brochure-br120001en-en-us.pdf

### Catalogs

Product Range Catalog Drives Engineering

eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf

SmartWire-DT Catalog

### Declarations of conformity

DA-DC-00003867.pdf

DA-DC-00003540.pdf

### Drawings

eaton-modular-plc-eu5e-i-o-module-dimensions.eps

eaton-modular-plc-eu5e-i-o-module-dimensions-002.eps

eaton-general-easy-control-relays-symbol-002.tif

eaton-general-approval-easy-control-relays-standards.jpg

eaton-general-eu5e-i-o-module-symbol.eps

eaton-modular-plc-swd-eu5e-i-o-module-3d-drawing.eps

### 10.2.3.3 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects

Meets the product standard's requirements.

### 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

### 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

### 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

### 10.2.7 Inscriptions

Meets the product standard's requirements.

### 10.3 Degree of protection of assemblies

Meets the product standard's requirements.

### 10.4 Clearances and creepage distances

Meets the product standard's requirements.

### 10.5 Protection against electric shock

Does not apply, since the entire switchgear needs to be evaluated.

### 10.6 Incorporation of switching devices and components

Does not apply, since the entire switchgear needs to be evaluated.

### 10.7 Internal electrical circuits and connections

Is the panel builder's responsibility.

### 10.8 Connections for external conductors

Is the panel builder's responsibility.

### 10.9.2 Power-frequency electric strength

Is the panel builder's responsibility.

### 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

### 10.9.4 Testing of enclosures made of insulating material

Is the panel builder's responsibility.

### 10.10 Temperature rise

The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.

### 10.11 Short-circuit rating

Is the panel builder's responsibility.

## eCAD model

DA-CE-ETN.EU5E-SWD-4DX

## Installation instructions

IL05006002Z

## Installation videos

SmartWire-DT in Application

## Manuals and user guides

MN05006002Z_EN

MN05006001Z_EN

## mCAD model

eaton-eu5e_swd_4dx-drawing.dwg

eaton-eu5e_swd_4dx-3d-model.stp

DA-CS-eu5e_swd_1

DA-CD-eu5e_swd_1

## Multimedia

How to process SmartWire-DT modules using the EASY-COM-SWD-C1 module connected to an easyE4?

SmartWire-DT Overview and how to use in easySoft 7

easyE4 SmartWire-DT module with Remote Touch Display and RMQ multi color indicator

## Sales notes

eaton-electro-hydraulic-module-eu1h-flyer-fl120003en-en-us.pdf

eaton-rmq-chemical-resistance-flyer-fl047011en-en-us.pdf

## Wiring diagrams

eaton-modular-plc-power-supply-eu5e-i-o-module-wiring-diagram.eps

### 10.12 Electromagnetic compatibility

Is the panel builder's responsibility.

### 10.13 Mechanical function

The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

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